

REMARKS

The Office Action mailed May 4, 2006 has been carefully considered. The Applicants have amended Claims 1, 10, 15, 19-20, 28 and 35-36. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claim Objections

Claim 10 stands objected to under 37 CFR 1.75(c), as being of improper dependent form for allegedly failing to further limit the subject matter of a previous claim. Claim 10 has been amended to cancel the redundant language pertaining to solder balls.

Claim Rejections – 35 USC § 102

Claims 1, 2, 10, 15-21, 28, 35, and 36 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by US 7,034,388 (Yang et al.; hereinafter, “Yang ‘388”). Applicants respectfully traverse.

Claim 1, 15, 19, 20 and 28 have been amended to state that the chip package comprises a chip and a package substrate *for the chip*. In contrast, Yang ‘388 discloses *two* chips, not a chip and a package substrate for the chip. Specifically, element 220 is a first chip, and element 230 is a second chip. The Yang ‘388 system is directed to a flip-chip type arrangement that seeks to optimize connections between *two* chips and a printed wiring board and is fundamentally different from the arrangement claimed, which is directed to methods and systems for connecting a chip package comprising a chip and package substrate for that chip to a printing wiring board that takes account of the increasing number of signaling connections that accompany the ever-

increasing device densities contained in modern integrated circuits. For this reason at least, claims 1, 15, 19, 20 and 28 are allowable over Yang '388. Claims 35 and 36 have been amended to further underscore the distinction between their subject matter and Yang '388. In particular, claims 35 and 36 now recite details of electrical connections of the claimed chip, emphasizing that the package and its connections are associated with the claimed chip, unlike in Yang '388 wherein the connections are associated with at least two chips, and are in fact referred to as redistribution circuits because they function to redistribute the connections of the upper chip away from those of the lower chip.

It should be noted that Yang '388 was filed after the filing date of the present application, and is a continuation-in-part of US 6,768,190 (Yang et al.; hereinafter, "Yang '190"). Therefore material from Yang '388 not disclosed in Yang '190 does not qualify as prior art against the presently claimed invention. Among such material are the heat sinks 188 that appear in Yang '388 only, which are not disclosed in Yang '190 and are therefore not entitled to the Yang '190 priority date. It is therefore respectfully maintained that claims 8, 13, 26 and 33 directed to heat sinks in the present application are allowable over the prior art of record for this reason as well as the reasons discussed above.

Attention is also respectfully directed to claim 16, which the Office Action does not appear to have addressed. Claim 16 specifies that the first surface is substantially orthogonal to the second surface. This covers the instance in which contacts are placed on the edges of a package, for example as discussed in the last sentence of Paragraph [0010] and shown in FIG. 4

of the specification. The prior art of record neither teaches nor suggests this features and claim 16 is patentable thereover for this reason as well as those discussed above.

Claim Rejections – 35 USC § 103

Claims 4-7, 11, 12, 22-25, and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang '388 in view of Eldridge et al. (US 6,336,269, hereinafter "Eldridge"). Claims 8, 9, 13, 14, 26, 27, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang '388 in view of Mertol (US 5,866,943, hereinafter "Mertol"). Claims 4-7, 11, 12, 22-25, and 29-32 are dependent from the base claims addressed above and are allowable at least for the same reasons since Eldridge fails to remedy any of the shortcomings discussed above. Similarly, claims 8, 9, 13, 14, 26, 27, 33 and 34 are also dependent from the base claims addressed above and are allowable at least for the same reasons since Mertol fails to remedy any of the shortcomings discussed above.

Conclusion

In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney at the number below.

Please charge any additional required fees, including those necessary to obtain extensions of time to render timely the filing of the instant Amendment and/or Reply to Office Action, or credit any overpayment not otherwise credited, to our deposit account no. 50-1698.

Respectfully submitted,
THELEN REID & PRIEST, L.L.P.

Dated: 08/04/2006

A handwritten signature in black ink, appearing to read 'Khaled Shami', written over a horizontal line.

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